

19
ONLINE SEARCH REQUEST FORM*****
USER

Tom Heckler

SERIAL NUMBER

262,754

ART UNIT

2316

PHONE

305-9666

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7/2/96

Please give a detailed statement of requirements. Describe as specifically as possible the subject matter to be searched. Define any terms that may have special meaning. Give examples or relevant citations, authors, or keywords, if known.

You may include a copy of the broadest and or relevant claim(s).

The clock frequency for a microprocessor is changed or varied depending on the temperature of the microprocessor.

6/20/94.

clock timing control/generator.
frequency control.

RECEIVED
STIC
JUL - 2 PM 3:20
U.S. PAT. & TM. OFF.*****
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COMPLETED

SEARCHER

ONLINE TIME

(in minutes)

NO. OF DATABASES

7/3/96

Robert F. Jack

308-1195

TOTAL TIME

150 min

33 min prep

✓ EIC

✓ Bibliography

SYSTEMS

CAS ONLINE

BARC/QUEST

DIALOG

SDC

OTHER

=> d his

(FILE 'USPAT' ENTERED AT 14:38:02 ON 02 JUL 96)

SET PAGELENGTH 62

SET LINELENGTH 78

L1	1310 S CHIP (3A) TEMPERATURE
L2	646 S PROCESSOR (3A) TEMPERATURE
L3	1060 S MICROPROCESSOR (3A) TEMPERATURE
L4	2946 S L1 OR L2 OR L3
L5	23816 S FREQUENCY (3A) CLOCK
L6	15 S L4 (P) L5
L7	2 S L6/AB

=>

NDC name: s1

Number Document		Number Document		Number Document
(1) 5,485,127	Skp US	(2) 4,685,614	Tag US	(3)

Pick a function: █

- (T) Tag document
- (S) Skip document
- (RM) Remove document
- (D) Delete document
- (RS) Reset to defaults

List all documents to be changed by number or enter 'A' for ALL:

Execute? (Y / N):

Pick a reference type: A

- (O) Original only
- (C) Cross only
- (A) All

Pick a display order

Pick an overall order: M

- (S) Separate subclasses
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Pick a date order: N

- (N) Newest-to-oldest
- (O) Oldest-to-newest

Pick a duplicates option: D

- (D) Do not show duplicates
- (S) Show duplicates

List patent sections to display in desired order: F

- (F) Front page
- (D) Drawings
- (S) Specification
- (S1) First page of Specification (US only)
- (S2) First two pages of Specification (US only)
- (C) Claims
- (CC) Changes/Corrections (US only)
- (R) Reexamination certificates (US only)
- (AM) Amendments (Foreign only)
- (A) All sections in standard order

Pick a viewing option: U

- (U) View unreviewed
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- (T) View tagged
- (A) View all
- (N) View none

Retrieve Documents from Training File? (Y / N): N

Execute? (Y / N): Y

NDC name: s2

Number	Document			Number	Document			Number	Document		
(1)	5,498,971	Skp	US	(2)	5,490,059	Skp	US	(3)	5,485,127	Skp	US
(4)	5,451,892	Skp	US	(5)	5,422,806	Skp	US	(6)	5,414,772	Skp	US
(7)	5,324,916	Skp	US	(8)	5,272,599	Skp	US	(9)	5,233,161	Skp	US
(10)	4,685,614	Skp	US	(11)	4,448,543	Skp	US	(12)	4,383,216	Skp	US
(13)	4,346,343	Skp	US	(14)	4,270,547	Skp	US	(15)	4,179,740	Skp	US

Pick a function: █

- (T) Tag document
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- (RM) Remove document
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List all documents to be changed by number or enter 'A' for ALL:

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Pick a display order

Pick an overall order: M

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- (M) Merge subs together

Pick a date order: N

- (N) Newest-to-oldest
- (O) Oldest-to-newest

Pick a duplicates option: D

- (D) Do not show duplicates
- (S) Show duplicates

List patent sections to display in desired order: F

- (F) Front page
- (D) Drawings
- (S) Specification
- (S1) First page of Specification (US only)
- (S2) First two pages of Specification (US only)
- (C) Claims
- (CC) Changes/Corrections (US only)
- (R) Reexamination certificates (US only)
- (AM) Amendments (Foreign only)
- (A) All sections in standard order

Pick a viewing option: U

- (U) View unreviewed
- (S) View skipped
- (T) View tagged
- (A) View all
- (N) View none

Retrieve Documents from Training File? (Y / N): N

Execute? (Y / N): Y

7/5/2 (Item 1 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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00741617

Heuristic clock speed optimizing mechanism and computer system employing same

PATENT ASSIGNEE:

ADVANCED MICRO DEVICES INC., (328124), One AMD Place, P.O. Box 3453,
Sunnyvale, California 94088-3453, (US), (applicant designated states:
AT;BE;DE;DK;ES;FR;GB;GR;IE;IT;LU;NL;PT;SE)

AUTHOR (Inventor):

Mahalingaiah, Rupaka, 7920 San Felipe, No.2606, Austin, Texas 78729, (US)
Hulett, Terry, 301 Copperleaf, Austin, Texas 78734, (US)

LEGAL REPRESENTATIVE:

BROOKES & MARTIN (100141), High Holborn House 52/54 High Holborn, London,
WC1V 6SE, (GB)

PATENT (CC, No, Kind, Date): EP 699992 A1 960306 (Basic)
APPLICATION (CC, No, Date): EP 95305516 950808
PRIORITY DATA (CC, No, Date): US 300432 940902
LANGUAGE (Publication,Procedural,Application): English; English; English
DESIGNATED STATES: AT; BE; DE; DK; ES; FR; GB; GR; IE; IT; LU; NL; PT; SE
INTL PAT CLASS: G06F-001/20;

WORD COUNT: 254

ABSTRACT: EP 699992 A1

A *microprocessor* includes a programmable thermal sensor *incorporated* on an associated semiconductor die for generating a signal indicative of the temperature of the semiconductor die. The control signal is provided to a frequency synthesizer which *controls* the frequency of the CPU *clock* signal. The frequency synthesizer is dynamically controlled such that the frequency of the CPU clock signal is varied to run at an optimal frequency while preventing the *microprocessor* from overheating. In one embodiment upon reset of the computer system, the clock frequency is set at an initial frequency. The clock frequency is gradually and incrementally increased until the temperature of the semiconductor die reaches a predetermined threshold. The frequency at which the predetermined temperature threshold was reached is then saved, and the operating frequency is reduced by a certain level. Following a period of time if the temperature of the semiconductor die falls below the predetermined threshold, the frequency of the clock signal is again raised to a predetermined amount by the saved frequency at which the temperature of the semiconductor die reached the predetermined threshold. The frequency of the *microprocessor* clock signal is then held constant until the predetermined maximum threshold temperature is again reached or until a predetermined time period expires, at which times the frequency of the clock signal may be lower or raised, respectively. (see image in original document)

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 960306 A1 Published application (A1withSR;A2withoutSR)

7/5/3 (Item 1 from file: 347)
DIALOG(R) File 347:JAPIO
(c) JPO & JAPIO. All rts. reserv.

04233073

CLOCK COSNTROLLER FOR DRIVING MICROPROCESSOR

PUB. NO.: 05-224773 [JP 5224773 A]

PUBLISHED: September 03, 1993 (19930903)
INVENTOR(s): NAKAI TOSHIO
APPLICANT(s): NIPPON STEEL CORP [000665] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 04-056836 [JP 9256836]
FILED: February 07, 1992 (19920207)
INTL CLASS: [5] G06F-001/04; G06F-015/78
JAPIO CLASS: 45.9 (INFORMATION PROCESSING -- Other); 45.4 (INFORMATION PROCESSING -- Computer Applications)
JAPIO KEYWORD: R005 (PIEZOELECTRIC FERROELECTRIC SUBSTANCES); R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessors)
JOURNAL: Section: P, Section No. 1658, Vol. 17, No. 673, Pg. 111, December 10, 1993 (19931210)

05-22477b
G06F 1/04
G06F 15/78

ABSTRACT

PURPOSE: To effectively utilize the performance of a *microprocessor* sufficiently as much as possible by changing clock velocity for driving the *microprocessor* while receiving the information of a temperature detecting means.

CONSTITUTION: A clock control circuit 15 selects an optimum clock frequency by a data analysis circuit 21 based on data from a temperature sensor 12, a signal at a basic *clock* frequency from a *clock* *generating* circuit 17 is frequency-divided, *and* the clock signal at the optimum frequency is transmitted to a *microprocessor* 10. When the temperature from the *temperature* sensor 12 is lower than a specified value, the frequency of the clock is increased and when the temperature is higher than the specified value, the frequency of the clock is decreased. Thus, the operating speed of the *microprocessor* can be made maximum at that temperature, and the performance of the *microprocessor* can be effectively utilized sufficiently as much as possible.

7/5/4 (Item 2 from file: 347)
DIALOG(R) File 347:JAPIO
(c) JPO & JAPIO. All rts. reserv.

01240832
CORRECTION OF MEASURED TEMPERATURE

PUB. NO.: 58-178232 [JP 58178232 A]
PUBLISHED: October 19, 1983 (19831019)
INVENTOR(s): TAKEUCHI NOBUO
NODA TATAE
APPLICANT(s): YAMATAKE HONEYWELL CO LTD [000666] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 57-060324 [JP 8260324]
FILED: April 13, 1982 (19820413)
INTL CLASS: [3] G01K-007/00; G01D-003/02; G01K-007/32; G08C-025/00
JAPIO CLASS: 46.1 (INSTRUMENTATION -- Measurement)
JAPIO KEYWORD: R005 (PIEZOELECTRIC FERROELECTRIC SUBSTANCES); R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessors)
JOURNAL: Section: P, Section No. 250, Vol. 08, No. 18, Pg. 145, January 26, 1984 (19840126)

ABSTRACT

PURPOSE: To eliminate the need of a pyrostat for *stabilizing* *the* oscillation frequency by a method wherein a temperature detector and a pulse *generator* for producing clock pulses are provided on the same conditions, a correction amount corresponding to a change in frequency of

the clock pulses in accordance with the measured temperature is obtained to correct the counted value, and then the measured temperature is corrected based on this correction amount.

CONSTITUTION: A control part CNT composed of a *microprocessor*, memory, etc. functions to compare a specified address with its own specific address set by an address setting unit AS, upon receiving a boring signal fed through a transmission path L and a transmission circuit SR, and then outputs the data of temperature value in accordance with coincidence of both addresses. Operation mode for a temperature sensor is set by a mode setting unit MS. A quartz oscillator X as a temperature detector includes a zero setting unit ZA for correcting its own characteristic deviation. A pulse *generator* PG for *generating* *clock* pulses is provided to restrict operation of the control part CNT. A display part DP is also provided which indicates the temperature value obtained by the control part CNT.

File 351:DERWENT WPI 1981-1996/UD=9625;UA=9621;UM=9613

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File 350:Derwent World Pat. 1963-1980/UD=9624

(c) 1996 Derwent Info Ltd

File 348:EUROPEAN PATENTS 1978-1996/JUN W3

(c) 1996 European Patent Office

File 347:JAPIO OCT 1976-1996/Feb.

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File 344:Chinese Patents ABS Apr 1985-1996/Jun

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Set	Items	Description
S1	44919	MICROPROCESSOR? ? OR MICRO()PROCESSOR? ?
S2	51954	(CLOCK? ? OR CLOCKING) (5N) (CONTROL? OR GENERAT?)
S3	54827	(TEMPERATURE? ? OR HEAT? OR THERMAL?) (5N) (SENSOR OR SENSORS OR SENSING)
S4	190728	(FREQUENCY OR FREQUENCIES OR SPEED? ?) (5N) (REDUC? OR SLOW? OR ADJUST? OR MODIF? OR CHANG? OR ALTER? OR LOWER? OR DECELER-AT?)
S5	110	S1 (N100) S2 (N100) S2 (N100) S4
S6	77	S5 NOT (PY=1995:1996 OR PD=940620:960703)
S7	4	S1 (N100) S2 (N100) S3 (N100) S4
S8	0	S8 NOT (PY=1995:1996 OR PY=940620:960703)
S9	23	S1 (N100) S3 (N100) S4
S10	0	S10 NOT (S8 OR PY=1995:1996 OR PD=940620:960703)
S11	19	S9 NOT S7

11/5/1 (Item 1 from file: 351)

DIALOG(R) File 351:DERWENT WPI

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010702148 WPI Acc No: 96-199103/20

Image available

Ventilation motor speed control circuit for microwave oven - comprises thermistor for sensing temp. of bottom of microwave oven, ADC for converting analog signal sensed by thermistor to digital signal, and transistors for adjusting speed of motor

Patent Assignee: (GLDS) GOLDSTAR CO LTD

Author (Inventor): CHOE J

Number of Patents: 001

Number of Countries: 001

Patent Family:

CC Number	Kind	Date	Week	
KR 9407145	B1	940806	9620	(Basic)

Priority Data (CC No Date): KR 879624 (870831)

Abstract (Basic): KR 9407145 B

The motor speed control circuit comprises the thermistor for *sensing* the temperature of the bottom of the microwave oven, the analog-to-digital (A/D) converter for converting an analog signal sensed by the thermistor to a digital signal, and the digital-to-analog (D/A) converter for converting the digital signal generated through a microprocessor from the A/D converter to the analog signal. first and second transistors *adjust* the *speed* of the ventilation motor, to *reduce* power consumption. Dwg.1/1

File Segment: EPI

Derwent Class: V06; X25;

Int Pat Class: H02P-001/00

Manual Codes (EPI/S-X): V06-N05; X25-B02B1

11/5/2 (Item 2 from file: 351)
DIALOG(R) File 351:DERWENT WPI
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.010092583 WPI Acc No: 94-360296/45

XRPX Acc No: N94-282339 *Image available*

Control system for e.g. central heating system which may be gas-fired -
has controller for providing operational control of heating-cooling
device and at least one temp. sensor including radio transmitter for
transmitting temp. information to

Patent Assignee: (GASC) BRITISH GAS PLC

Author (Inventor): BAKOPOULOS C P; MCNAIR H P

Number of Patents: 003

Number of Countries: 009

Patent Family:

CC Number	Kind	Date	Week	
GB 2278463	A	941130	9445	(Basic)
EP 635812	A1	950125	9508	
CA 2124053	A	941125	9509	

Priority Data (CC No Date): GB 9310666 (930524); GB 9310667 (930524); GB
9310668 (930524)

Applications (CC,No,Date): CA 2124053 (940520); GB 9410413 (940523); EP
94303676 (940523)

Language: English

EP and/or WO Cited Patents: CH 676398; EP 529316; FR 2502817; GB 2230163;
US 4654859; US 4734871; US 4885766; US 5182543; WO 9014563; WO 9304451

Designated States

(Regional): BE; DE; ES; FR; GB; IT; NL; SE

Abstract (Basic): GB 2278463 A

The control system includes a room *temperature* sensor (10) which
utilises radio transmission to send temperature information via antenna
(11) to a receiver (15) via an antenna (16). The receiver provides an
output to a *microprocessor* control unit (18) to cause actuation of
the boiler (19) for example if the room temperature falls below a
preset value. The temperature selected can be varied by up/down keys
(13/14) on the *sensor* (10). Temperature information can be displayed
by a display (12).

Unique coding identifies the transmitting sensor and transmission
can be sequenced on a number of frequencies to reduce the risk of
reception failure. Additional *temperature* *sensors* including a hand
held unit each with a unique identity code can be used and transmission
time is varied to avoid coincident transmission from the sensors.
Telephone linkage for a number of devices can be provided.

ADVANTAGE - Reduces wiring requirements between room thermostat
and control unit.

Dwg.1/19

File Segment: EPI

Derwent Class: T06; W01; W05; X27;

Int Pat Class: F24D-019/10; F24F-011/00; G05D-023/19; G08C-017/00;
G08C-025/00; H04M-011/06

Manual Codes (EPI/S-X): T06-B13B1; W01-C05B3E; W05-D03C; W05-D07A; W05-D07C
; X27-E01A; X27-G02

11/5/3 (Item 3 from file: 351)
DIALOG(R) File 351:DERWENT WPI
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009489893 WPI Acc No: 93-183428/23

XRPX Acc No: N93-140940 *Image available*

Deceleration warning lamp circuit in a car - has microprocessor receiving output from vehicle deceleration and wheel deceleration sensors comparing with preset emergency braking threshold

Patent Assignee: (BUCK-) BUCK WERKE GMBH & CO

Author (Inventor): BANNASCH H

Number of Patents: 002

Number of Countries: 001

Patent Family:

CC Number	Kind	Date	Week	
DE 4139215	A1	930603	9323	(Basic)
DE 4139215	C2	940511	9417	

Priority Data (CC No Date): DE 4139215 (911128)

Applications (CC,No,Date): DE 4139215 (911128)

Abstract (Basic): DE 4139215 A

The system has a deceleration sensor to measure the deceleration of at least one wheel and another sensor to measure the effective deceleration of the vehicle. A *microprocessor* receives the output from both sensors and activates a warning lamp if the deceleration exceeds a preset threshold for emergency braking, representative of a collision.

The *microprocessor* determines the vehicle speed and if the deceleration is less than the threshold for emergency braking, yet the speed lies over another threshold, then driving conditions are ascertained (indicated by use of headlamps or windshield wipers and by ambient *temperature* *sensor*) and the deceleration threshold may be reduced.

ADVANTAGE - Sensitive control of threshold for activation of warning lamp.

Dwg.1/2

Abstract (DE): 9417 DE 4139215 C

The vehicle hazard lights (14) switching-in device uses a retardation sensor (S1) responding to the vehicle retardation exceeding a threshold value, indicating impact danger, to activate the hazard lights. A second acceleration sensor (S2) detects the acceleration of at least one vehicle wheel. The signals from both sensors are fed to a microprocessor (3) when the second sensor indicates emergency braking.

The retardation is provided by a piezo-resistive sensor. The microprocessor provides comparative signal analysis of the sensor signals, to activate the hazard lights when the 2 signals indicate a skid condition.

USE/ADVANTAGE - Automatic control of hazard lights for safety of other road users. Transient or permanent actuation of hazard lights depending on length of time and force of braking.

Dwg.1/2

File Segment: EPI

Derwent Class: Q16; S02; T01; X22;

Int Pat Class: B60Q-001/44; B60Q-001/52

Manual Codes (EPI/S-X): S02-G03; T01-J08A; X22-B02A1

11/5/4 (Item 4 from file: 351)

DIALOG(R)File 351:DERWENT WPI

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009465621 WPI Acc No: 93-159159/19

Related WPI Accession(s): 91-353893

XRPX Acc No: N93-122244 *Image available*

Appts. for monitoring corrosion in corrosive atmosphere - uses piezoelectric crystal coated with corrodible metallic substance, having known vibration frequency which varies due to corrosion

Patent Assignee: (PURA-) PURAFIL INC

Author (Inventor): ENGLAND W G; OSBORNE M W; ZHANG X

Number of Patents: 001

Number of Countries: 001

Patent Family:

CC Number	Kind	Date	Week	
US 5208162	A	930504	9319	(Basic)

Priority Data (CC No Date): US 521079 (900508); US 812766 (911223)

Abstract (Basic): US 5208162 A

****A preferred crystal mounting arrangement includes one or more coated crystals (15) supported *below* a case (21). The leads (19) pass upwardly through openings in a tin plated steel dish (21) into the case where they are connected to electronic circuitry. The leads (19) are potted to the dish with epoxy (23). The coated surface of the crystal (15) is preferably oriented to face downwardly to avoid excess accumulation of dust. A protective cage (22) may *be* placed around the crystal assembly to prevent accidental contact with the crystal or its coated surface. However, the cage (22) should not appreciably restrict the flow of ambient air past the coated crystal. Multiple coated crystals may be used with one monitor (10), and may carry different corrodible metals (18), as defined above.**

The frequency of each coated crystal which decreases as the metallic surface layered upon the crystal corrodes, is output to the counter (40), which also includes conventional circuit elements (not shown) for zeroing the counter output at the original frequency of the coated crystal prior to exposure to the corrosive atmosphere. Therefore, the output from the counter represents the *change* in frequency of the coated crystal caused by corrosion. The temperature in the corrosive atmosphere is sensed by the *temperature* sensor (55), and the relative humidity of the corrosive atmosphere is also sensed, by a humidity *sensor* (58). The temperature sensor is preferably of a conventional design such as a National Semiconductor Corp. Model LM35. The humidity sensor is preferably of a conventional design such as a Minicap 2 model, manufactured by Panametrics. The counter (40), *temperature* (55), and the humidity *sensor* (58) provide output signals to a programmable converter circuit (50), preferably a programmable 80C31 *microprocessor* operating at 8.3886 MHz.

USE/ADVANTAGE - In industrial process measurements and control rooms, motor control centres, electrical rooms, semiconductor clean rooms electronic mfg. sites, commercial data centres, museums and libraries/archival storage rooms, and may be used to check exhaustion level of filtration media to protect the environment of such space
Dwg.1/6

File Segment: EPI

Derwent Class: S03; U11; V06; X13;

Int Pat Class: G01N-017/02

Manual Codes (EPI/S-X): S03-E02X; S03-F07; U11-C15B; V06-K02; V06-L01A2; X13-E08

11/5/5 (Item 5 from file: 351)

DIALOG(R) File 351:DERWENT WPI

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008314219 WPI Acc No: 90-201220/26

XRPX Acc No: N90-156584 *Image available*

Temp. compensated side lobe suppressor for marine radar beacon - determines which frequencies are out of band as temp. varies and has microprocessor for changing threshold values in RAM

Patent Assignee: (TIDE-) TIDELAND SIGNAL

Author (Inventor): OLIVENBAUM J E; FISCHER M C

Number of Patents: 001

Patent Family:

CC Number	Kind	Date	Week
US 4931976	A	900605	9026 (Basic)

Priority Data (CC No Date): US 266560 (881103)

Abstract (Basic): US 4931976

The circuit includes a temperature measuring device connected to and measuring the *temperature* of the sensor. the outputs of the temperature measuring device the frequency measuring device and the amplitude measuring device are digitised. A side lobe suppression memory RAM is connected to the digitiser for receiving the frequency measurement. The RAM has an output providing a threshold value in response to the frequency input. A comparator is connected to the output of the RAM for receiving a threshold value and is also connected to the digitiser for receiving the amplitude measurement. The comparator provides an output response if the amplitude is greater than the threshold value.

A microprocessor is connected to the digitiser means for receiving the temperature-frequency calibration table for determining band edges as the temperature varies. The microprocessor changes the threshold values in the RAM of the *frequencies* in response to)temperature *changes*.

ADVANTAGE - Less clutter and false responses. @(6pp Dwg.No.3/3

File Segment: EPI

Derwent Class: W02; W06; R48;

Int Pat Class: H01Q-003/26

Manual Codes (EPI/S-X): W02-B06; W02-G09; W06-A04B; W06-A04X

11/5/6 (Item 6 from file: 351)

DIALOG(R)File 351:DERWENT WPI

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008106994 WPI Acc No: 89-372105/51

XRPX Acc No: N89-283260

Thermal printer controller for ticket issuing machine - automatically monitors temperature rise in thermal head and disables printer according to preset reference value; AIRPORT AIRLINE

Patent Assignee: (TODK) TOKYO ELECTRIC CO LTD

Author (Inventor): TAKAISHI K

Number of Patents: 002

Number of Countries: 007

Patent Family:

CC Number	Kind	Date	Week
EP 346833	A	891220	8951 (Basic)
US 5059044	A	911022	9145

Priority Data (CC No Date): JP 88147381 (880615)

Applications (CC,No,Date): EP 89110692 (890613); US 365089 (890612)

Language: English

EP and/or WO Cited Patents: A3...9023; DE 3337950; No-SR.Pub; US 3777116; US 4540295

Designated States

(Regional): DE; FR; GB; IT; NL; SE

Abstract (Basic): EP 346833 A

The *microprocessor* controlled printing circuit (1,2) derives a signal from the temperature sensor (10) which detects the difference of printing head (9) temperature before and after each keyboard-controlled (6,7) printing operation. The difference is representative of the rate of temperature increase in the printing head.

For rates of temperature rise which exceed a reference value, the thermal head (9) is temporarily disabled for a time period proportional to the excess rate, thereby maintaining maximum ticket issuing speed without overheating the head.

USE/ADVANTAGE - Issue of thermally printed airline boarding tickets. Avoids overheating of thermal printing head without *reduction* of ticket issuing *speed*. Dwg.1/6

Abstract (US): 9145 US 5059044

The ticket issuing device includes a thermal head, a temperature detector circuit for detecting the temperature of the thermal head, and a printing control circuit for driving the thermal head to repeatedly print boarding ticket information on paper a number of times, corresponding to the number of tickets to be issued, and issuing the printed paper as tickets.

In the ticket issuing device, the printing control circuit derives a temperature difference between the temperatures detected by the temperature detector circuit before and after each printing operation, and uses the result as the rate of temperature increase of the thermal head, temporarily sets the thermal head into a non-active state for a period of time corresponding to a difference between the rate of the temperature rise and a reference value set to be higher than the rate of the temperature rise which will be attained in the course of the printing operation at normal printing density, when it is detected that the rate of temperature increase has exceeded the reference value and then starts the printing operation.

USE - For boarding tickets at airports. @(10pp)@

File Segment: EPI

Derwent Class: P75; T04; T05; W06;

Int Pat Class: B41J-002/37; G07B-001/00

Manual Codes (EPI/S-X): T04-G03; T05-C; W06-B02

11/5/7 (Item 7 from file: 351)
DIALOG(R) File 351:DERWENT WPI
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007630735 WPI Acc No: 88-264667/38

XPX Acc No: N88-200960 *Image available*

Laser diode frequency stabilising method independent of diode current - raising current slowly from zero to required rated value, with simultaneous housing temp. variations.

Patent Assignee: (SPIN-) SPINDLER & HOYER GM

Author (Inventor): ABOUZEID A

Number of Patents: 002

Patent Family:

CC Number	Kind	Date	Week
DE 3706635	A	880915	8838 (Basic)
DE 3706635	C	890209	8906

Priority Data (CC No Date): DE 3706635 (870302)

Abstract (Basic): DE 3706635

The temp. of the laser diode housing is measured and kept constant by heat supply or cooling. Then the current, required for the laser diode operation, is switched on. The current strength is slowly raced from a starting value, e.g. zero, to a rated value corresponding to the required output power of the laser diode (8).

During the current control and further current strength changes, the temp. of the laser diode housing is so changed that the temp. of the laser-active zone of the laser diode is held in accordance with a stabilising factor, related to the wave length of the laser diode light, current strength, and the laser diode house temp. The laser active zone temp. is pref. held constant even with current strength at zero.

ADVANTAGE - Long term stability and increased precision. @(10pp DWg.No.7/8)p

Abstract (DE): 8906 DE 3706635

A current in a semiconductor laser (8) form a source (1) is cotnrolled by a regulator (3) according to a set point adjustment (2). Laser temperature is regulated by a controller (11), temp. *sensor* (12) and Peltier *heating* element (20), according to a set point input (17).

Since laser frequency changes both with current and temperature, the current regulator (3) and temperature controller (11) are interlinked via a scaling unit (9), which uses current reference (10) and temperature reference (14) to establish the relationship between current and temperature which is characteristic of a particular laser and which gives long term frequency stability to within typically 1 p.p.m. The same control function is achievable by *microprocessor*. @(14pp)@

File Segment: EPI

Derwent Class: S02; U12; V08; R49;

Int Pat Class: H01S-003/13

Manual Codes (EPI/S-X): S02-A03; U12-A01B4; V08-A02A; V08-A03C; V08-A04A

11/5/8 (Item 8 from file: 351)
DIALOG(R)File 351:DERWENT WPI
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004358789 WPI Acc No: 85-185667/31

XRPX Acc No: N85-139455

Control appts. for air conditioner regulates rotational speed of compressor motor depending on data output of memory selector

Patent Assignee: (MATU) MATSUSHITA ELEC IND KK

Author (Inventor): JABAMI R; HAMAGUCHI A; MATSUDA S; EJIMA Y

Number of Patents: 005

Patent Family:

CC Number	Kind	Date	Week	
GB 2152246	A	850731	8531	(Basic)
AU 8436947	A	850704	8533	
US 4622827	A	861118	8649	
GB 2152246	B	870617	8724	
KR 9005721	B	900806	9141	

Priority Data (CC No Date): JP 83250888 (831228)

Applications (CC,No,Date): GB 8432709 (841228); US 684722 (841221)

Abstract (Basic): GB 2152246

When first switched on a control apparatus (10) selects a start-up mode of operation for controlling an air conditioner compressor (1) with a higher maximum speed H2 only in the case where the difference between the measured temperature of the room at the start of the operation and a target temperature is larger than a predetermined value. The controller otherwise selects normal mode operation for operating the compressor (1) with a *lower* maximum speed H1, thus reducing wear on the compressor.

Operation is changed to normal mode after a predetermined period or sooner, if the compressor motor current exceeds a predetermined

-value. Data for the two modes is held in respective memories (56,58) of a *microprocessor* (25) and selected in dependence on a *temperature* *sensor* (21), a current *sensor* (6) and a timer (62).

ADVANTAGE - Improves start-up characteristics. @(13pp Dwg.No.3/7

Abstract (US): 8649 US 4622827

A command signal for a normal mode of operation when a detected room temperature at the start of a warming operation is higher than a set value of temperature, and a command signal for a start-up mode of operation when the room temperature is lower than the set value. A memory stores data corresponding to maximum rotational speed of a compressor in a normal mode of operation and a second memory stores data corresponding to a second maximum rotational speed of the compressor in a start-up mode of operation, the second speed being larger than the first.

A selector outputs the normal and start-up mode rotation data when the relevant command signal is inputted. A control is provided for controlling the rotational speed of the compressor corresponding to the output of the selector.

ADVANTAGE - Extends life of compressor. @(13pp)@

Abstract (GB): 8724 GB 2152246

A control apparatus for an air conditioner, comprising: temperature measuring means for measuring the temperature of a room, command means for generating a command signal for a normal mode of operation when the measured temperature lies to one side of a predetermined temperature value and generating a command signal for a start-up mode of operation when the measured temperature lies to the other side of the predetermined temperature value, first memory means for storing normal rotation data corresponding to the rotational speed of a compressor in a normal mode of operation, the normal rotation data having data indicative of rotational speeds up to a maximum rotational speed of the compressor during normal operation, second memory means for storing start-up rotation data corresponding to the rotational speed of a compressor in a start-up mode of operation, the start-up rotation data having data indicative of rotational speeds up to a maximum rotational speed of the compressor during the start-up mode of operation which is higher than the maximum rotational speed of the compressor during normal operation, selecting means for outputting the normal rotation data stored in the first memory means when the command signal for normal mode of operation is generated by the command means, and for outputting the start-up rotation data stored in the second memory means when the command signal for start-up operation is generated by the command means, and control means for controlling the rotational speed of the compressor depending on the output data of the selecting means.

File Segment: EPI

Derwent Class: T06; X27; R26; Q74

Int Pat Class: G05D-023/24; F24F-011/08

Manual Codes (EPI/S-X): T06-B13B1; X27-E01B

11/5/9 (Item 9 from file: 351)
DIALOG(R) File 351:DERWENT WPI
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003633990 WPI Acc No: 83-J2193K/25

XRPX Acc No: N83-106526

Defrost control system for refrigeration plant has humidity sensing to control time base of defrost processor

Patent Assignee: (AMMA) AMF INC

Author (Inventor): SWEETMAN J D

Number of Patents: 002

Patent Family:

CC Number	Kind	Date	Week	
DE 3246248	A	830616	8325	(Basic)
US 4395887	A	830802	8333	

Priority Data (CC No Date): US 330525 (811214)

Abstract (Basic): The automatic defrosting system for a refrigeration plant operates on a clocked cycle that varies the rate to suit the measured relative humidity. When the humidity falls below a predetermined level the clock *frequency* is proportionally reduced and the defrost start cycle is accordingly delayed.

The output of the *temperature* and humidity *sensing* circuit (11) is fed into the proportional defrost module (12) together with the output of the defrost time base circuit (13). Typically the range of operation of the frequency generator is from 20 to 60+ c.p.s. The control system is based upon solid state devices together with a *microprocessor* module. (59pp Dwg.No.1/11)

File Segment: EPI

Derwent Class: T06; X27; Q75; R26;

Int Pat Class: F25D-021/00; G05D-022/02

Manual Codes (EPI/S-X): T06-B07; X27-F03

11/5/10 (Item 1 from file: 348)
DIALOG(R) File 348:EUROPEAN PATENTS
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00531356

Vehicle passenger compartment temperature control system.

PATENT ASSIGNEE:

EATON CORPORATION, (218424), Eaton Center, 1111 Superior Avenue,
Cleveland, Ohio 44114-2584, (US), (applicant designated states:
DE;FR;GB;IT)

AUTHOR (Inventor):

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Jarosch, George William, 315 Forest View Drive, Elk Grove, Illinois 60007
, (US)

Glennon, Thomas Francis, 7537 Wilton Road, Darien, Illinois 60559, (US)

LEGAL REPRESENTATIVE:

Wagner, Karl H. (12561), WAGNER & GEYER Patentanwälte Gewürzmühlstrasse 5
, D-80538 München, (DE)

PATENT (CC, No, Kind, Date): EP 548677 A2 930630 (Basic)

EP 548677 A3 940608

APPLICATION (CC, No, Date): EP 92121004 921209;

PRIORITY DATA (CC, No, Date): US 813554 911226

LANGUAGE (Publication,Procedural,Application): English; English; English

DESIGNATED STATES: DE; FR; GB; IT

INTL PAT CLASS: B60H-001/00;

CITED PATENTS (EP A): US 4974664 A; DE 3215293 A

CITED REFERENCES (EP A)

VEREIN DEUTSCHER INGENIEURE 'VDI-Gesellschaft Fahrzeugtechnik. ELEKTRONIK
IM KRAFTFAHRZEUGBAU' 1986 , VDI VERLAG , D}SSELDORF, DE

PATENT ABSTRACTS OF JAPAN vol. 15, no. 318 (M-1146)14 August 1991 &
JP-A-03 118 211 (MAZDA) 20 May 1991;

WORD COUNT: 119

ABSTRACT: EP 548677 A2

A system for controlling vehicle passenger compartment comfort. An electronic controller (82) receives input from: (i) a thermistor array

(104) *sensing* blower plenum discharge temperature, (ii) a user movable Level Select Control (84) (iii) a potentiometer sensing the position of a servo driven heater core water valve (20), (iv) an engine rpm tachometer (92) generator and (v) a blower speed signal. The controller (82) employs proportional-integral-derivative (PID) strategy in a microprocessor (80) to generate a control signal for operating the heater core valve servo motor (68) to maintain the plenum discharge air at a constant temperature irrespective of wide swings in engine rpm/water pump *speed* or user selector *changes* in blower *speed*. (see image in original document)

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 930630 A2 Published application (A1withSR;A2withoutSR)
Change: 940316 A2 Representative (change)
Search Report: 940608 A3 Separate publication of the European or
International search report
Examination: 941026 A2 Date of filing of request for examination:
940826
Examination: 950920 A2 Date of despatch of first examination report:
950808

11/5/11 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
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04306293

DRIVE CONTROLLER FOR MICROPROCESSOR

PUB. NO.: 05-297993 [JP 5297993 A]
PUBLISHED: November 12, 1993 (19931112)
INVENTOR(s): IKEDA OSAMU
APPLICANT(s): DIA SEMIKON SYST KK [000000] (A Japanese Company or
Corporation), JP (Japan)
APPL. NO.: 04-096780 [JP 9296780]
FILED: April 16, 1992 (19920416)
INTL CLASS: [5] G06F-001/32
JAPIO CLASS: 45.9 (INFORMATION PROCESSING -- Other)
JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers &
Microprocessors); R139 (INFORMATION PROCESSING -- Word
Processors)
JOURNAL: Section: P, Section No. 1695, Vol. 18, No. 100, Pg. 70,
February 17, 1994 (19940217)

ABSTRACT

PURPOSE: To reduce unrequired power consumption without *lowering* the throughput and processing speed of a *microprocessor* apparently and to suppress heat generation as continuing a program execution operation when overheat occurs in the *microprocessor*.

CONSTITUTION: The *microprocessor* 2 is operated in a mode with low power consumption and processing speed when no fast processing is requested. The ambient temperature of the processor 2 is detected by a *temperature* *sensor* 10, and the mode is switched to an operating mode with low processing speed and power consumption when an overheated state occurs, which suppresses the heat generation.

11/5/12 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO
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04213760

OPTICAL DISK DEVICE

PUB. NO.: 05-205460 [JP 5205460 A]
PUBLISHED: August 13, 1993 (19930813)
INVENTOR(s): NAKAJIMA NORIKO
APPLICANT(s): NEC ENG LTD [329822] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 04-010314 [JP 9210314]
FILED: January 23, 1992 (19920123)
INTL CLASS: [5] G11B-033/14
JAPIO CLASS: 42.5 (ELECTRONICS -- Equipment)
JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers &
Microprocessors)
JOURNAL: Section: P, Section No. 1650, Vol. 17, No. 637, Pg. 134,
November 25, 1993 (19931125)

ABSTRACT

PURPOSE: To prevent the lowering of the recording and reproducing function of an optical disk due to the rapid change of temperature by using a difference of the output of a *temperature* sensor and a specified temperature and *changing* the rotating speed of a fan.

CONSTITUTION: A temperature signal 3 from the temperature sensor 2 is fetched by a temperature calculation circuit 4 and the difference from the specified temperature set previously is calculated and stored in a temperature change information part 6 as a temperature change signal 5. The temperature change information is fetched by a micro processor 8 and control data is fetched from a fan revolving speed control part 7 and a fan rotating speed corresponding to present temperature is set, and the fan rotating speed is outputted to a fan control circuit 10 as a fan rotation signal 9. The fan control circuit 10 generates a fan driving signal 11 by the fan rotation signal 9 and *changes* the rotating *speed* of the fan 12. Thus, the lowering of the function of the optical disk is prevented even though temperature rises rapidly.

11/5/13 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO
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02298263

CONTROLLING DEVICE FOR AUTOMATIC TRANSMISSION

PUB. NO.: 62-215163 [JP 62215163 A]
PUBLISHED: September 21, 1987 (19870921)
INVENTOR(s): YAMAMOTO KEIICHI
ISHIKAWA KAZUO
APPLICANT(s): AISIN SEIKI CO LTD [000001] (A Japanese Company or
Corporation), JP (Japan)
APPL. NO.: 61-055982 [JP 8655982]
FILED: March 13, 1986 (19860313)
INTL CLASS: [4] F16H-045/02; B60K-020/00
JAPIO CLASS: 22.2 (MACHINERY -- Mechanism & Transmission); 26.2
(TRANSPORTATION -- Motor Vehicles)
JAPIO KEYWORD: R116 (ELECTRONIC MATERIALS -- Light Emitting Diodes, LED);
R131 (INFORMATION PROCESSING -- Microcomputers &
Microprocessors)
JOURNAL: Section: M, Section No. 674, Vol. 12, No. 73, Pg. 54, March
08, 1988 (19880308)

ABSTRACT

PURPOSE: To reduce errors in detecting vehicle speed and *increase* the *accuracy* of automatic speed change *control* and lock-up control by judging the abnormality of an automatic transmission when it is in a lock-up condition, based on the detected values of an engine speed sensor and a vehicle speed sensor.

CONSTITUTION: A torque converter 1, an overdrive mechanism 2, and a gear *speed* change mechanism 3 are included in an automatic transmission 100. The set position of the manual shift valve 210 of a hydraulic circuit 300 is detected by a shift lever position sensor 410 and given to a *speed* change control device 400. And, the microprocessor of the control device 400 makes on/off control of solenoid valves 320, 330, 370, to control the *speed* change and lock-up of the automatic transmission 100. Also, signals and pulses such as an electric pulse synchronized with the rotation of an output shaft 39 and the like, are given from a pulse generator 420, a throttle opening sensor 430, a pulse generator 450, a temperature sensor 440, and a vehicle *speed* sensor 460 to the speed change control device 400, to carry out lock-up control and *speed* *change* control.

11/5/14 (Item 4 from file: 347)
DIALOG(R) File 347:JAPIO
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02010506
DIGITAL TEMPERATURE COMPENSATION OSCILLATOR

PUB. NO.: 61-224606 [JP 61224606 A]
PUBLISHED: October 06, 1986 (19861006)
INVENTOR(s): HASHI TOSHIO
TANI ATSUSHI
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 60-065611 [JP 8565611]
FILED: March 29, 1985 (19850329)
INTL CLASS: [4] H03B-005/32; H03B-005/04; H03L-001/02
JAPIO CLASS: 42.4 (ELECTRONICS -- Basic Circuits)
JAPIO KEYWORD: R005 (PIEZOELECTRIC FERROELECTRIC SUBSTANCES); R131
(INFORMATION PROCESSING -- Microcomputers & Microprocessors)
JOURNAL: Section: E, Section No. 484, Vol. 11, No. 65, Pg. 100,
February 27, 1987 (19870227)

ABSTRACT

PURPOSE: To prevent an output *frequency* of an oscillator from being changed suddenly by adding an integration means to a *microprocessor* so as to slow down timewise the change in a temperature compensation DC voltage fed to a varactor diode.

CONSTITUTION: An output of a *temperature* *sensor* 1 is converted into a digital signal by an A/D converter 2, the signal is inputted to a *microprocessor* 3, where it is processed, and its output is converted into an analog DC voltage by a D/A converter 4 and then fed to a varactor diode 5. The integration means 8 is added to the *microprocessor* 3 in the oscillator of the digital temperature compensation type in this way so as to slow down timewise the change in the temperature compensation DC voltage fed to the varactor diode 5. For example, information of low-order bit assigned to the *microprocessor* 3 is assigned to a *microprocessor* 8 applying integration processing, the *microprocessor* 8 averages the

information in a certain time and the result is outputted to the D/A converter 4. Thus, the momentary change in the output signal to the D/A converter 4 is suppressed.

11/5/15 (Item 5 from file: 347)
DIALOG(R)File 347:JAPIO
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01829133

FUEL INJECTION CONTROL DEVICE OF ENGINE FOR AUTOMOBILE

PUB. NO.: 61-043233 [JP 61043233 A]
PUBLISHED: March 01, 1986 (19860301)
INVENTOR(s): IDA SUSUMU
APPLICANT(s): FUJI HEAVY IND LTD [000534] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 59-163675 [JP 84163675]
FILED: August 03, 1984 (19840803)
INTL CLASS: [4] F02D-041/10; F02D-041/04
JAPIO CLASS: 21.2 (ENGINES & TURBINES, PRIME MOVERS -- Internal Combustion)
JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessors)
JOURNAL: Section: M, Section No. 498, Vol. 10, No. 200, Pg. 63, July 12, 1986 (19860712)

ABSTRACT

PURPOSE: To *perform* smooth acceleration of an automobile suitable for its speed shift gear position, by obtaining a reference accelerative increase rate of fuel from a quantity of intake air, speed of an engine, cooling water temperature, throttle opening, etc. and correcting the increase rate in accordance with the *speed* change shift of a speed changer when the automobile is accelerated.

CONSTITUTION: A microprocessor 6 detects an accelerative condition from a change quantity of throttle opening in a throttle opening sensor 1. And a reference accelerative increase rate of fuel injection quantity is calculated in accordance with a signal from an intake air quantity sensor 3, water temperature sensor 2, engine speed sensor 4, throttle opening sensor 1, etc. Next, an accelerative increase quantity is obtained by multiplying said increase rate by an increase/decrease rate in accordance with the detected *speed* *change* shift of a *speed* *change* shift sensor 5, and this accelerative increase quantity is corrected as a correction part of the basic injection quantity.

11/5/16 (Item 6 from file: 347)
DIALOG(R)File 347:JAPIO
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01787954

MEASURING DEVICE OF CONCENTRATION

PUB. NO.: 61-002054 [JP 61002054 A]
PUBLISHED: January 08, 1986 (19860108)
INVENTOR(s): TAKAHASHI AKIRA
APPLICANT(s): DENKI KAGAKU KEIKI CO LTD [359427] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 59-123582 [JP 84123582]

FILED: June 15, 1984 (19840615)
INTL CLASS: [4] G01N-027/06
JAPIO CLASS: 46.2 (INSTRUMENTATION -- Testing)
JAPIO KEYWORD: R116 (ELECTRONIC MATERIALS -- Light Emitting Diodes, LED);
R131 (INFORMATION PROCESSING -- Microcomputers &
Microprocessors)
JOURNAL: Section: P, Section No. 461, Vol. 10, No. 149, Pg. 21, May
30, 1986 (19860530)

ABSTRACT

PURPOSE: To attain highly reliable measurement of concentration by measuring conductivity to grasp the temperature changing state of a sample.

CONSTITUTION: A conductivity meter 1 incorporating a *microprocessor* in it is constituted of a conductivity/conductivity changing speed measuring circuit part 5, a digital display part 6, etc. and connected to an electrode 2. The electrode 2 is inserted into a sample 4 put in a sample container 3. Since the *microprocessor* is built in the conductivity meter 1, the concentration of the sample 4 is digitally displayed by simple key operation without collating a scale with a measuring line and reading out the concentration from the scale. In addition, a time when the temperature is restored to a prescribed value can be discriminated by measuring the conductivity. Thus, the stabilization of the temperature can be detected only by the measurement of the conductivity without adding a *temperature* *sensor* and a *temperature* measuring circuit.

11/5/17 (Item 7 from file: 347)
DIALOG(R) File 347:JAPIO
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01169215

CONSTANT TEMPERATURE CONTROLLING METHOD FOR GRAIN DRYER

PUB. NO.: 58-106615 [JP 58106615 A]
PUBLISHED: June 25, 1983 (19830625)
INVENTOR(s): INABA TOMOO
APPLICANT(s): TATSUMOTO AKIHIRO [000000] (An Individual), JP (Japan)
APPL. NO.: 56-205772 [JP 81205772]
FILED: December 18, 1981 (19811218)
INTL CLASS: [3] G05D-023/20; B02B-007/00
JAPIO CLASS: 22.3 (MACHINERY -- Control & Regulation); 11.1 (AGRICULTURE -- Agriculture & Forestry); 24.2 (CHEMICAL ENGINEERING -- Heating & Cooling)
JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers &
Microprocessors)
JOURNAL: Section: P, Section No. 224, Vol. 07, No. 212, Pg. 87,
September 20, 1983 (19830920)

ABSTRACT

PURPOSE: To attain stable temperature control, by performing constant. *temperature* control by a temperature sensor and controlling the frequency and duty ratio of a drive pulse for an electromagnetic pump by a microprocessor.

CONSTITUTION: The electromagnetic pump 12 supplies a fuel to generate hot air required *for* drying, the hot air temperature is preset by a temperature setter 29, and the hot air temperature is measured by a temperature sensor 28. The microprocessor 21 *changes* *the* pulse *frequency* and the duty ratio based on the difference of the hot air

temperature between the present and previous measurements and that between the present measurement and the temperature set at the setter 29, drives the electromagnetic pump and controls the hot air temperature at a constant temperature.

11/5/18 (Item 8 from file: 347)

DIALOG(R)File 347:JAPIO

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01093053

CONTROL METHOD FOR INTERNAL COMBUSTION ENGINE

PUB. NO.: 58-030453 [JP 58030453 A]

PUBLISHED: February 22, 1983 (19830222)

INVENTOR(s): AOKI KUNITOMO

APPLICANT(s): NIPPON DENSO CO LTD [000426] (A Japanese Company or Corporation), JP (Japan)

APPL. NO.: 56-126582 [JP 81126582]

FILED: August 14, 1981 (19810814)

INTL CLASS: [3] F02D-035/00

JAPIO CLASS: 21.2 (ENGINES & TURBINES, PRIME MOVERS -- Internal Combustion)

JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessors)

JOURNAL: Section: M, Section No. 214, Vol. 07, No. 110, Pg. 43, May 13, 1983 (19830513)

ABSTRACT

PURPOSE: To promote the control capacity in the whole area of number of revolutions by *changing* a schedule table prescribing the frequency and the starting order of AD-conversion on every input signal on the basis of a crank angle signal and a cylinder discrimination signal.

CONSTITUTION: When the number of revolutions of an engine is in the area of high revolution, an MPU (*microprocessor*) 1321 uses a previously prescribed AD-conversion schedule table of high speed revolution, that is thins out the AD-conversion frequency of signals of a water *temperature* *sensor* 2 and a suction *temperature* *sensor* 3. In the area *of* low revolution, it uses a previously prescribed schedule table of low speed revolution, and increases the AD-conversion frequency of the water temperature 2. When the engine is neither in high nor low revolution area, a schedule table of the area of normal engine revolution is set. AD-conversion is carried on the basis of each schedule table, and the computation of engine control is processed on each input condition. This method permits to promote the control capacity in the whole area of number of revolutions.

11/5/19 (Item 9 from file: 347)

DIALOG(R)File 347:JAPIO

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01059832

CONTROL METHOD OF FUEL IN INTERNAL COMBUSTION ENGINE

PUB. NO.: 57-210132 [JP 57210132 A]

PUBLISHED: December 23, 1982 (19821223)

INVENTOR(s): NAKATSUKA KOKEI

MIZUNO TOSHIAKI

YAMAZOE HISAMITSU
MATSUOKA HIROKI

APPLICANT(s): NIPPON DENSO CO LTD [000426] (A Japanese Company or Corporation), JP (Japan)
TOYOTA MOTOR CORP [000320] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 56-092110 [JP 8192110]
FILED: June 17, 1981 (19810617)
INTL CLASS: [3] F02D-005/02; F02D-033/00
JAPIO CLASS: 21.2 (ENGINES & TURBINES, PRIME MOVERS -- Internal Combustion); 32.0 (POLLUTION CONTROL -- Anti-pollution Treatment); 35.8 (NEW ENERGY SOURCES -- Conservation)
JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers & Microprocessors)
JOURNAL: Section: M, Section No. 201, Vol. 07, No. 68, Pg. 112, March 19, 1983 (19830319)

ABSTRACT

PURPOSE: To both perform smooth *speed* change with selection of gears and save fuel, by inhibiting an increase of fuel or changing a quantity of the increase at gear *changeover* (at speed change) of an automobile provided with a manual *speed* changer.

CONSTITUTION: An electronic controller 12 for fuel injection control is input with each output signal a-d from an intake air quantity sensor 3, throttle opening detector sensor 5, distributor 7 and water temperature sensor 10, to arithmetically obtain a fuel injection pulse signal e showing opening time of a fuel injection valve 8. Here a microprocessor 110 provided in the controller 12 calculates a change rate $\Delta(Q/N)$ of ratio of an air intake quantity Q to a rotary *speed* N , to compare this *change* rate with a gear selective detection level $K(\text{sub } 1)$. Thus the controller is constituted such that if said rate is $\Delta(Q/N) < K(\text{sub } 1)$, gear switching time is decided to inhibit an increase of fuel performed at acceleration of an engine or change a quantity of the increase of fuel.

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File 8:Ei Compendex*Plus(TM) 1970-1996/Jul W4
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File 14:Mechanical Engineering Abs 1973-1996/Jul
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File 109:Nuclear Sci. Abs. 1948-1976
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Set	Items	Description
S1	6025	(CLOCK? ? OR CLOCKING) (5N) (CONTROL? OR GENERAT?)
S2	33795	(TEMPERATURE? ? OR HEAT? OR THERMAL?) (5N) (SENSOR OR SENSORS OR SENSING)
S3	14	S1(N20)S2
S4	13	S3 NOT (PY=1995:1996 OR PD=940620:960703)
S5	148605	(FREQUENCY OR FREQUENCIES OR SPEED? ?) (5N) (REDUC? OR SLOW? OR ADJUST? OR MODIF? OR CHANG? OR ALTER? OR LOWER? OR DECELER-AT?)
S6	0	S3(N20)S5
S7	0	S3 AND S5
S8	0	S4 AND S5
S9	9	RD S4 (unique items)
S10	1	(S1 AND S2 AND S5) NOT (S3 OR PY=1995:1996 OR PD=960703)
S11	138211	MICROPROCESSOR? ? OR MICRO()PROCESSOR? ?
S12	3	S11 AND S4
S13	3	RD S12 (unique items)

DIALOG(R)File 2:INSPEC

(c) 1996 Institution of Electrical Engineers. All rts. reserv.

02984114 INSPEC Abstract Number: C87062662

Title: A microcomputer-based system for feed control temperature control and temperature recording in an experimental fish hatchery

Author(s): Hoy, J.B.

Author Affiliation: Div. of Biol. Control, California Univ., Berkeley, CA, USA

Journal: Computers and Electronics in Agriculture vol.1, no.1 p. 105-9

Publication Date: Oct. 1985 Country of Publication: Netherlands

CODEN: CEAGE6 ISSN: 0168-1699

U.S. Copyright Clearance Center Code: 0168-1699/85/\$03.30

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: An automatic feed delivery system and complementary temperature control and recording system designed to save labor and improve the efficiency of an experimental fish rearing facility is described. A microcomputer with a 6502 type *****microprocessor***** accepts an instruction array of feeding times and amounts, as well as upper and lower temperature limits for activation of an alarm and a heater, respectively. Feed is released by solenoid-actuated devices constructed from common materials and components. All other peripheral devices (real-time *****clock*****, disk drive input-output control and *****temperature***** *****sensors*****) are commercially available. The BASIC program for control of feeding and temperature is available upon request. (2 Refs)

Descriptors: farming; microcomputer applications; temperature control

Identifiers: feeding amount; microcomputer-based system; feed control; temperature control; temperature recording; experimental fish hatchery; automatic feed delivery system; experimental fish rearing facility; 6502 type *****microprocessor*****; instruction array; feeding times; temperature limits; alarm; heater; solenoid-actuated devices

Class Codes: C3310J (Other natural resources); C7490 (Other engineering fields)

13/5/2 (Item 1 from file: 8)

DIALOG(R)File 8:Ei Compendex*Plus(TM)

(c) 1996 Engineering Info. Inc. All rts. reserv.

03976709 E.I. No: EIP94112407574

Title: CMOS magnetic-field sensor system

Author: Sprotte, Andreas; Buckhorst, Rolf; Brockherde, Werner; Hosticka, Bedrich J.; Bosch, Dieter

Corporate Source: Fraunhofer Inst of Microelectronic Circuits and Systems, Duisburg, Ger

Source: IEEE Journal of Solid-State Circuits v 29 n 8 Aug 1994. p 1002-1005

Publication Year: 1994

CODEN: IJSCBC ISSN: 0018-9200

Language: English

Document Type: JA; (Journal Article) Treatment: T; (Theoretical)

Journal Announcement: 9412W4

Abstract: A magnetic-field sensor system integrated in CMOS technology with additional processing steps necessary for sensor fabrication is presented. The system contains a magnetoresistive permalloy microbridge acting as a *****sensor*****, temperature compensation circuitry, programmable readout electronics, reference voltage bias, and *****clock***** *****generation*****. It features maximum magnetic flux

sensitivity of 70 mV/ μ T (corresponds to the magnetic-field sensitivity of 88.2 mV/(A/m) $q\mu$ //r equals 1) and its temperature gain is below 260 ppm/ degree C in the range between minus 50 degree C and plus 100 degree C. (Author abstract) 7 Refs.

Descriptors: CMOS integrated circuits; Sensors; Magnetic fields; Integrated circuit manufacture; Sensitivity analysis; Magnetic properties; Anisotropy; *****Microprocessor***** chips

Identifiers: Magnetic field sensor system; Magnetoresistive permalloy

Classification Codes:

714.2 (Semiconductor Devices & Integrated Circuits); 732.2 (Control Instrumentation); 701.2 (Magnetism: Basic Concepts & Phenomena); 931.2 (Physical Properties of Gases, Liquids & Solids); 713.5 (Other Electronic Circuits)

714 (Electronic Components); 732 (Control Devices); 701 (Electricity & Magnetism); 931 (Applied Physics); 713 (Electronic Circuits)

71 (ELECTRONICS & COMMUNICATIONS); 73 (CONTROL ENGINEERING); 70 (ELECTRICAL ENGINEERING); 93 (ENGINEERING PHYSICS)

13/5/3 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

Comp & dist by NTIS, Intl Copyright All Rights Res. All rts. reserv.

1041111 NTIS Accession Number: AD-P002 678/1

High Accuracy Temperature Measurement on a Diagnostic Canister for the Nevada Test Site

Gerigk, D. C.

Lawrence Livermore National Lab., CA.

Corp. Source Codes: 068147000; 390999

Jun 83 13p

Languages: English

Journal Announcement: GRAI8409

This article is from 'Transducer Workshop (12th) Held at Melbourne, Florida on 7-9 June 1983,' AD-A137 304, p130-142.

NTIS Prices: PC A02/MF A01

Country of Publication: United States

Contract No.: W-7405-eng-48

A data system was designed to measure 30 temperatures to an overall accuracy of + or - 0.1 C. The temperature measurements were part of a dimensional ability study being done on a diagnostic canister used at the Nevada Test Site by the Lawrence Livermore National Laboratory. The system consisted of thermistors as the temperature-sensing element and a data logger which provided the following functions: current source, scanning system, voltmeter, and clock. A microprocessor, in turn, provided control to the data logger, a storage medium for the data, and the means for on-line conversion and display of the data. The performance of the system was optimized by calibrating each thermistor channel using the data system as readout and creating a unique calibration equation for each thermistor. Thus the system was calibrated as a whole to eliminate as many variables as possible. Four separate calibration runs were made. The data from one of these runs were used to calculate the constants for the temperature versus resistance equation for each thermistor channel. The data from remaining three runs were then compared to resistance points calculated using this equation. The maximum deviation for any thermistor channel was 0.03 C. The system performed very well, recording data every hour for approximately three weeks. (Author)

Descriptors: *Temperature measuring instruments; Information systems; Canisters; Accuracy; Microprocessors; Thermistors; Error analysis; Calibration; Underground explosions; Nuclear explosions

Identifiers: Component Reports; NTISDODXA

Section Headings: 14B (Methods and Equipment--Laboratories, Test Facilities, and Test Equipment); 20M (Physics--Thermodynamics); 18C (Nuclear Science and Technology--Nuclear Explosions); 77D (Nuclear Science and Technology--Nuclear Explosions and Devices)

File 2:INSPEC 1969-1996/Jul W1
(c) 1996 Institution of Electrical Engineers

File 8:Ei Compendex*Plus(TM) 1970-1996/Jul W4
(c) 1996 Engineering Info. Inc.

File 14:Mechanical Engineering Abs 1973-1996/Jul
(c) 1996 Cambridge Sci Abs

File 62:SPIN(R) 1975-1996/Jun B1
(c) 1996 American Institute of Physics

File 233:Microcomputer Abstracts(TM) 81-1996/Jun
(c) 1996 Information Today, Inc

File 1:ERIC 1966-1996/May
(c) format only 1996 Knight-Ridder Info

File 61:LISA(LIBRARY&INFOSCI) 1969-1996/Jun
(c) 1996 Reed Reference Publishing

File 202:Information Science Abs. 1966-1996/May
(c) 1996 IFI/Plenum Data Corp.

File 6:NTIS 64-1996/Aug W3
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File 35:Dissertation Abstracts Online
(c) 1996 UMI

File 77:Conference Papers Index 1973-1996/Jul
(c) 1996 Cambridge Sci Abs

File 103:Energy SciTec 1974-1996/Jun B1
(c)format only 1996 Knight-Ridder Info

File 109:Nuclear Sci. Abs. 1948-1976
(c)format only 1995 Knight-Ridder Info

File 108:Aerospace Database 1962-1996/Jun
(c) 1996 AIAA

File 239:MathSci(R) 1940-1996/Jul
(c) 1996 American Mathematical Society

File 144:Pascal 1973-1996/Jun
(c) 1996 INIST/CNRS

File 142:Wilson Social Sciences Abs 1983-1996/Apr
(c) 1996 The HW Wilson Co

File 434:SciSearch(R) Cited Ref Sci 1974-1996/Jun W2
(c) 1996 Inst for Sci Info

File 7:Social SciSearch(R) 1972-1996/Jun W5
(c) 1996 Inst for Sci Info

File 49:PAIS INT. 1976-1996/MAY
(c) 1996 Public Affairs Information Service

Set	Items	Description
S1	6025	(CLOCK? ? OR CLOCKING) (5N) (CONTROL? OR GENERAT?)
S2	33795	(TEMPERATURE? ? OR HEAT? OR THERMAL?) (5N) (SENSOR OR SENSORS OR SENSING)
S3	14	S1(N20)S2
S4	13	S3 NOT (PY=1995:1996 OR PD=940620:960703)
S5	148605	(FREQUENCY OR FREQUENCIES OR SPEED? ?) (5N) (REDUC? OR SLOW? OR ADJUST? OR MODIF? OR CHANG? OR ALTER? OR LOWER? OR DECELER-AT?)
S6	0	S3(N20)S5
S7	0	S3 AND S5
S8	0	S4 AND S5
S9	9	RD S4 (unique items)
S10	1	(S1 AND S2 AND S5) NOT (S3 OR PY=1995:1996 OR PD=960703)
S11	138211	MICROPROCESSOR? ? OR MICRO()PROCESSOR? ?
S12	3	S11 AND S4
S13	3	RD S12 (unique items)
S14	0	S11 AND S10
S15	167	(S11(N10)S2) NOT S12

S16	0	S15 (N20) S5
S17	0	S15 (N10) (CLOCK? ? OR CLOCKING)

File 275:IAC(SM) Computer Database(TM) 1983-1996/Jul 03
(c) 1996 Info Access Co
File 148:IAC Trade & Industry Database 1976-1996/Jul 03
(c) 1996 Info Access Co
File 88:IAC BUSINESS A.R.T.S. 1976-1996/Jul W5
(c) 1996 Information Access Co
File 674:Computer News Fulltext 1989-1996/Jun W4
(c) 1996 IDG Communications
File 624:McGraw-Hill Publications 1985-1996/Jul 02
(c) 1996 McGraw-Hill Co. Inc
File 623:Business Week 1985-1996/Jun W4
(c) 1996 The McGraw-Hill Companies Inc
File 746:Time Publications 1985-1996
(c) 1996 Time Inc.
File 646:Consumer Reports 1982-1996/May.
(c) 1996 Consumer Union
File 636:IAC Newsletter DB(TM) 1987-1996/Jul 03
(c) 1996 Information Access Co.
File 15:ABI/INFORM(R) 1971-1996/Jun W5
(c) 1996 UMI
File 16:IAC PROMT(R) 1972-1996/Jul 03
(c) 1996 Information Access Co.
File 47:Magazine Database(TM) 1959-1996/Jul 03
(c) 1996 INFORMATION ACCESS CO.
File 75:IAC Management Contents(R) 86-1996/Jun W5
(c) 1996 Info Access Co

Set	Items	Description
S1	217116	MICROPROCESSOR? ? OR MICRO()PROCESSOR? ?
S2	7911	(CLOCK? ? OR CLOCKING) (5N) (CONTROL? OR GENERAT?)
S3	12731	(TEMPERATURE? ? OR HEAT? OR THERMAL?) (5N) (SENSOR OR SENSORS OR SENSING)
S4	110511	(FREQUENCY OR FREQUENCIES OR SPEED? ?) (5N) (REDUC? OR SLOW? OR ADJUST? OR MODIF? OR CHANG? OR ALTER? OR LOWER? OR DECELER-AT?)
S5	166	S1(N100)S2(N100)S2(N100)S4
S6	139	S5 NOT (PY=1995:1996 OR PD=940620:960703)
S7	78	RD S6 (unique items)
S8	3	S1(N100)S2(N100)S3(N100)S4
S9	0	S8 NOT (PY=1995:1996 OR PY=940620:960703)
S10	46	S1(N100)S3(N100)S4
S11	30	S10 NOT (S8 OR PY=1995:1996 OR PD=940620:960703)
S12	24	RD S11 (unique items)

12/3,KWIC/1 (Item 1 from file: 275)
DIALOG(R)File 275:IAC(SM) Computer Database(TM)
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01532313 SUPPLIER NUMBER: 12579761 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Robot review. (several new robots are described) (Newsline) (Product Announcement)
Robotics Today, v5, n2, p5(1)
Summer, 1992
DOCUMENT TYPE: Product Announcement ISSN: 0193-6913 LANGUAGE:
ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 667 LINE COUNT: 00053

... shaft, and two sizes of AC motors. Each motor has an integrated mechanical brake and *****temperature***** sensor for overload and overheating protection. Call (414) 783-3400.

The AW-8010SP (photo), a six-axis articulated arm robot with 32-bit *****microprocessor***** from Panasonic Factory Automation Co. (Franklin Park, IL), does material handling, high-speed welding to...

...control for maintaining workpiece and weld-joint positioning while welding large, complicated parts. It also *****modifies***** positions, travel *****speeds***** welding schedules, and weave parameters while arc welding. Call (313) 377-7000.

ESAB's (Fort...

12/3,KWIC/2 (Item 2 from file: 275)
DIALOG(R)File 275:IAC(SM) Computer Database(TM)
(c) 1996 Info Access Co. All rts. reserv.

01455772 SUPPLIER NUMBER: 11471523 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Getting intimate with transistors. (Mixed-Signal Design) (column)
Ohr, Stephan
Computer Design, v30, n13, p121(2)
Oct, 1991
DOCUMENT TYPE: column ISSN: 0010-4566 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1723 LINE COUNT: 00135

In a control system, for example, input *****sensors***** translate *****changes***** in temperature, pressure, speed, position, flow rate, light level, etc. into a *****change***** in voltage, current or *****frequency*****. On the output side of a system, changes in voltage and currents will drive the...

...currents and voltages and translate them into a digital pattern the central controller--invariably a *****microprocessor*****--can use. This makes up only a small portion of a largely digital system. As...

12/3,KWIC/3 (Item 1 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

08531941 SUPPLIER NUMBER: 14778802 (USE FORMAT 7 OR 9 FOR FULL TEXT)
International Air-Conditioning, Heating, Refrigerating Exposition 1994:
supplier highlights.
Appliance, v51, n1, p73(9)
Jan, 1994
ISSN: 0003-6781 LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 5077 LINE COUNT: 00418

... electromechanical component and wiring contact, while improving system versatility, protection, reliability, and installed cost. The *****microprocessor*****-based control also reportedly enables HVAC manufacturers to test products in speed-up mode for...

...control. Brushless d.c. or a.c. external rotor motors are standard. Optional features include *****speed***** control, motor modifications, *****thermal***** *****sensing***** and plug-in wiring assemblies for easy assembly at customer plants.

Circle No. 468 on...

12/3,KWIC/4 (Item 2 from file: 148)

DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

07191032 SUPPLIER NUMBER: 15151774 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Second-generation on-board diagnostics. (Robert Bosch GmbH's Motronic M4.3
powertrain control module)
Automotive Engineering, v102, n1, p107(5)
Jan, 1994
ISSN: 0098-2571 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 2927 LINE COUNT: 00236

... if an applicable number of valid measured values are reached.
The Volvo 850 Turbo uses *****heated***** oxygen sensors. A
nonfunctioning heater will delay sensor readiness for closed-loop control.
The monitoring function measures both the *****sensor***** heater current,
by the voltage drop over a shunt, and the heater voltage, by checking the
heater supply voltage. These values are used to calculate the actual
*****sensor***** heater resistance. The monitoring function is activated
once per trip, after the heater has been...

...to the PCM. In the PCM there is a low-side switch controlled by the
*****microprocessor*****. A shunt is located between the ground and switch.
There is a separate shunt for...
...NOx emissions. It is possible to determine EGR flow in exhaust gas by
using a *****temperature***** *****sensor***** mounted in the EGR valve.
The system is monitored with a fully opened EGR valve...

12/3,KWIC/5 (Item 3 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

06781820 SUPPLIER NUMBER: 14233470 (USE FORMAT 7 OR 9 FOR FULL TEXT)
1993 supplier capabilities section. (Directory)
Automotive Engineering, v101, n7, p105(69)
July, 1993
DOCUMENT TYPE: Directory ISSN: 0098-2571 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 23288 LINE COUNT: 02099

... surface mount technology, switches, thermal design/analysis;
Electrical: automatic guidance and steering, control software, electric
*****adjustable*****-speed drive control, electrical propulsion,
electromagnetic and permanent magnet control, feedback control,
heavy-duty-truck transmission control, industrial control,
*****microprocessor*****-based control, servo control; Electronic: analog
digital component design, application-specific integrated circuits (ASIC's
...

...dry chemistry, ion implantation, infrared technology, integrated circuit
fabrication, microlithography, micromachining, microwave components,
semiconductor fabrication, *****sensors*****, surface mount components,
*****thermal***** detectors, thin film deposition, thin/thick film hybrid
circuits, wafer processing; Vehicle Powertrain Products/Controls...

12/3,KWIC/6 (Item 4 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

06754784 SUPPLIER NUMBER: 14276965 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Increasing the flexibility of process control: intelligent programmable
process controllers and specialized software are enabling operators to
switch process lines to accomodate different products with the touch of a
button.

Valenti, Michael

Mechanical Engineering-CIME, v115, n10, p62(6)

Oct, 1993

ISSN: 0025-6501 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 3961 LINE COUNT: 00331

... marketed in the United States by Jumo Process Control.

Jumo engineers designed two types of *****microprocessor*****-based
Dicon controllers. The Dicon PRS, PR, and P full-profiling controllers can
hold up...

...laboratory use are also available. All Dicon controllers are designed to
receive input from Jumo *****sensors*****, including thermocouples,
resistance temperature detectors (RTD), pressure transducers, and relative
humidity transducers. Signals from these...

...twisted-pair wire, or in the case of RTDs, three-wire compensating
cable.

An Intel *****microprocessor***** within the Dicon unit conditions
the sensor signals to the 60-millivolt range, and in the case of RTDS,
three-wire compensating cable.

An Intel *****microprocessor***** within the Dicon unit conditions
the sensor signals to the 60-millivolt range, and in...

...units to control the temperature and pressure characteristics of its two
Heimsoth kilns. "These parameters *****change***** when we *****change*****
production *****speed***** or the size of the tiles we are making," said
Sid Schmoker, production manager at...

12/3, KWIC/7 (Item 5 from file: 148)
DIALOG(R) File 148: IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

06401874 SUPPLIER NUMBER: 13465047 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Technicians get more options to carry in toolbox and truck. (hvac repair
equipment and supplies displayed at the ASHRAE-ARI expo)
Air Conditioning, Heating & Refrigeration News, v188, n7, p72(2)

Feb 15, 1993

ISSN: 0002-2276 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 1381 LINE COUNT: 00114

... control system for facilities with less-complex control needs; and
the TS-6410 Series "Metastat" *****temperature***** sensors.

Honeywell (Golden Valley, Minn.) introduced Excel 5000, a modular
building control system based on...

...Perkasie, Pa.) announced a joint project with the Electric Power
Research Institute, to develop a *****microprocessor*****-based electronic
line voltage thermostat for baseboard heating. "Lin-Stat" was billed as "a
major...

...show goes a mixed bag of new technologies from its various
manufacturing arms. These included *****adjustable*****-*****speed*****
drives for ac and dc motor control from Danfoss Electronics; "Adap-Kool," a
case controller

12/3,KWIC/8 (Item 6 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

06166542 SUPPLIER NUMBER: 12800703 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Retrofit system for firing pulverized coal in boilers. (Advanced Energy
Systems)
Wagoner, Charles L.; Attig, Richard C.; Foote, John P.
Mechanical Engineering-CIME, v114, n9, p89(6)
Sept, 1992
ISSN: 0025-6501 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 3315 LINE COUNT: 00259

... baghouse was sized to provide maximum filtration velocity of
about-4 feet per minute.

A *****microprocessor*****-based control and data acquisition system
was developed for the retrofit system. The system provides...

...which the combustion air flow rate is controlled. The air flow rate is
varied by *****changing***** the rotational speed of the fan motor using a
variable speed motor drive. The air...

...flue gas exiting the stack. The oxygen concentration is measured by a
standard automotive oxygen *****sensor***** having a built-in resistance
*****heater***** to maintain the *****sensor***** at its correct operating
*****temperature*****. This method for controlling combustion air flow has
several advantages. The optimum air-fuel ratio...

12/3,KWIC/9 (Item 7 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

06124684 SUPPLIER NUMBER: 12525791 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Innovation in motion: suppliers of motors and air moving devices partner
with appliance OEMs to meet needs for efficiency, quality, and
accelerated product design. (original equipment manufacturers; includes
related articles on efficiency of electric motors and on issues affecting
the industry according to the Small Motors Manufacturers Association)
Somheil, Timothy
Appliance, v49, n8, pS5(14)
August, 1992
ISSN: 0003-6781 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 7090 LINE COUNT: 00576

... If there was an increase in temperature, the fan would run at an
increased speed. *****Microprocessor*****-based brushless d.c. motor
systems are among the new techniques being used to meet...

...a feedback sensor. It's then an easy matter with brushless d.c.
technology to *****adjust***** motor speed to vary the performance as
required to assure maximum efficiency. The result is...

...efficiency of brushless d.c motors."

For thermal control, the outside control can be a *****sensor*****
*****sensing***** air stream *****temperature***** and

12/3,KWIC/10 (Item 8 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

05896950 SUPPLIER NUMBER: 12307695 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Sensor developments. (automotive electronic sensors)
Automotive Engineering, v100, n3, p29(3)
March, 1992
ISSN: 0098-2571 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 1980 LINE COUNT: 00162

... filter and engine block. Electronic circuitry converts changes in the oil's dielectric constant to *****changes***** in frequency. The spacer ring houses the sensor in the high-flow area near the...

...the oil needs to be changed. However, the capacitive oil condition sensor could provide the *****microprocessor***** of an oil-monitoring system with a chemical parameter, enhancing the ability of present systems.

New production techniques

A highly reliable, low-cost *****temperature***** sensor, based on a thermistor and novel production techniques for sealing and electric connection, has been developed by engineers at Toyota (Figure 3). The *****sensor***** measures intake air *****temperature***** in the EFI system. Durability of the sensor in the engine compartment is attained by

12/3,KWIC/11 (Item 9 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

05205613 SUPPLIER NUMBER: 10959421 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Industry trends punctuate 8th edition of exhibition. (Converting Materials & Machinery conference, Chicago, Illinois) (Converter Show Report)
Zuck, Robert A.; Miller, Molly E.
Paper, Film and Foil CONVERTER, v65, n6, p60(5)
June, 1991
ISSN: 0031-1138 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 4434 LINE COUNT: 00363

... megahertz. It projects a radio-frequency field into the sample and measures the loss or *****change***** in the radio-frequency-dielectric constant as affected by moisture. The system's response is...

...for moisture and at the other as a reference wavelength.

The BSP-4004 four-channel, *****micro*****-*****processor*****-based system uses infrared and/or radio-frequency sensors to monitor and control multiple production...

12/3,KWIC/12 (Item 10 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

05160502 SUPPLIER NUMBER: 10753418 (USE FORMAT 7 OR 9 FOR FULL TEXT)
NPE '91. (1991 National Plastics Exposition and Conference)
Plastics Engineering, v47, n5, p28(36)
May, 1991
ISSN: 0091-9578 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 25816 LINE COUNT: 02154

... will be showing its 810LPZ low-profile robot feed granulator, which features a Smart-1 *****microprocessor*****-controlled programmable drive. The system provides feedback display of drive frequency, voltage, current, and power...

...said to be especially suited to situations involving tight space constraints.

The company, which offers *****microprocessor***** controls on its full line of granulation equipment, will also highlight its 1624 Tangential Feed...

...return to their original color. The reversible color change permits the easy identification of nonoperating *****heaters*****, thus eliminating the need for sensing devices and continuity testing. The firm will also show its line of G-TEMP hot air *****heaters*****, which feature a temperature sensor, solid state power control, and a Serpentine heating element. The...

...system that permits direct coupling to a mixer or extruder--thus eliminating the effects of *****speed***** *****reducers***** (and other power transmission components) and providing a more accurate indication of the flow behavior...

12/3,KWIC/13 (Item 11 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
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04586854 SUPPLIER NUMBER: 09019077 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Hydrostatic tank gauges accurately measure mass, volume, and level.
Berto, Frank J.
Oil and Gas Journal, v88, n20, p57(3)
May 14, 1990
ISSN: 0030-1388 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 2420 LINE COUNT: 00204

... coefficient and H is the distance between P[.sub.1] and P[.sub.2].
The *****temperature***** sensor permits calculation of standard density at 60 degrees F. by using the appropriate API...

...volume at storage temperature, and standard volume at 60 degrees F.

The HIU also has *****microprocessor***** memory to retain a set of tank capacity tables for the tank.

Necessary developments

Three developments during the last 10 years have made HTG's feasible:

- * Accurate, stable, *****microprocessor*****-equipped (smart) pressure transmitters

- * Digital output signals

- * Inexpensive *****microprocessor***** logic.

Smart pressure transmitters use a variety of sensing mechanisms. One vendor uses a vibrating wire where the *****frequency***** of the vibrations *****changes***** with tension caused by pressure.

Another uses differential capacitance where the difference in capacitance is...

12/3,KWIC/14 (Item 12 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
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12/3,KWIC/16 (Item 14 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
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02326351 SUPPLIER NUMBER: 03676264 (USE FORMAT 7 OR 9 FOR FULL TEXT)
The push into silicon for pressure sensing.
Teschler, Leland E.
Machine Design, v57, p71(6)
March 7, 1985
ISSN: 0024-9114 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 1852 LINE COUNT: 00155

... silicon sensors. These sensors have some signal conditioning capability on the sensor chip itself. Several *****sensor***** chips, for example, now combine temperature compensation and linearization circuitry (usually resistor networks) with the...

...turbine engines. The sensors are housed in a central control box along with a small *****microprocessor***** for performing calculations. Ports are provided to allow measurement of inlet and exit pressure, and...

...fuel efficiency through all stages of flight, particularly when the turbine is ramping up to *****speed***** or *****slowing***** down.

Other potential applications for intelligent sensing are in automobiles and process monitoring. However, though...

12/3,KWIC/17 (Item 15 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
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01880110 SUPPLIER NUMBER: 02956685 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Prompt payback claimed for desiccant air coolers.
Nee, Eric
Supermarket News, v33, p7(1)
Oct 3, 1983
ISSN: 0039-5803 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 778 LINE COUNT: 00062

... consists of three unequal Friedrich compressors with 36.5 horsepower on a common manifold; a *****microprocessor*****-based controller used to select the proper compressor combination according to suction pressure and case *****temperature*****; demand defrost sensors triggering defrost of the display cases according to frost build-up, which significantly *****lowers***** the *****frequency***** of defrost required, and floating condensor pressure.

The conventional system consists of two equal Hussmann...

...of load levels depending on its need, which can vary during the year.

Using a *****microprocessor***** that selects the correct compressor combination according to suction pressure and case temperature provides three...

12/3,KWIC/18 (Item 1 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0141461

04563196 SUPPLIER NUMBER: 08916163 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Window lineals: are two heads better than one? (includes article about
foam-core extrusion)
Callari, James J.
Plastics World, v48, n4, p42(4)
April, 1990
ISSN: 0032-1273 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 2476 LINE COUNT: 00195

... dry-vacuum calibration system (there are 10 sizers in all).
Temperature is controlled independently through *****heater***** bands.
Infrared sensors are mounted at each die exit to measure thickness. Beyond
that, the...

...difference occurs behind the scenes. At the heart of the system is an
on-line *****microprocessor*****-control package called the Actual DES
(Dual Extrusion Synchronization). This system adjusts die temperature and/
or haul-off speed to compensate for any off-spec thickness variations.

The *****microprocessor***** package keeps tolerances as tight as
possible, especially when used with an extruder featuring closed...
...the DES controller only needs to make subtle adjustments to die
temperature and haul-off *****speed*****. That way, *****changes***** made
to accommodate an off-spec strand are so small - and occur so quickly -
that...

12/3,KWIC/15 (Item 13 from file: 148)
DIALOG(R)File 148:IAC Trade & Industry Database
(c) 1996 Info Access Co. All rts. reserv.

04546088 SUPPLIER NUMBER: 08567029 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Hospital expects 30% energy savings from Robertshaw EMS. (Sheboygan
Memorial Medical Center)
Howard, Theresa
Energy User News, v15, n2, p11(1)
Feb, 1990
ISSN: 0162-9131 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 810 LINE COUNT: 00063

... pumps, as well as valves and dampers. However, because the hospital
may install a separate *****microprocessor***** controller on its gas-fired
boilers, they will not immediately be subject to the EMS...

...temperatures, according to Gisch.

Dampering, Gisch said, is the process of shutting down dampers to
*****reduce***** fan speeds in unoccupied office areas. Through a
time-of-day setting, dampers will be closed to *****reduce***** fan speed
by as much as one half, depending on when administrative offices are
occupied...

...combination with indoor and outdoor temperature and humidity sensors.
The sensors will measure the indoor *****and***** outdoor temperatue and
humidity simultaneously. Based on those readings and whether the building
is calling for heating or cooling, the EMS *****will***** increase or
decrease the volume of incoming air.

For example, if outdoor temperatures and humidity exceed inside
temperatures and humidity when the building is calling for cooling, the EMS
will *****reduce***** fan *****speeds***** to stop the incoming air from
entering the building. Use of the cooling system can...

JOINT VENTURE TO OFFER NEW DIPPING SONAR TO U.S., CANADA
Aerospace Daily February 28, 1989; Vol. 149, No. 40
Journal Code: ASD ISSN: 0193-4546
Word Count: 266 *Full text available in Formats 5, 7 and 9*

TEXT:

...that lowers and retrieves the probe from the helicopter.

The sensor section will operate at *****lower***** frequencies and at greater depths than previous systems, Sanders said, substantially improving submarine detection range. The 50-inch, 160 pound probe includes acoustic projectors and receivers. A *****microprocessor***** handles communications from the probe to the aircraft, and also sends *****sensor***** data-- *****temperature***** , pressure and probe position--along with acoustic information.

The team demonstrated a prototype of the...

12/3,KWIC/19 (Item 2 from file: 624)
DIALOG(R)File 624:McGraw-Hill Publications
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0117182

SELECT THE RIGHT VACUUM GAGE: Ranging from simple manometers to smart transmitters, these gages come in a host of varieties
Chemical Engineering March, 1989; Pg 125; Vol. 96, No. 3
Journal Code: CE ISSN: 0009-2460
Section Heading: Engineering Feature
Word Count: 7,456 *Full text available in Formats 5, 7 and 9*

BYLINE:

D. L. Roper, Tennessee Eastman Co.
J. L. Ryans, Tennessee Eastman Co.

TEXT:

... the gages chosen to monitor the performance of the pumps. Accordingly, the specification of the *****gages***** or transmitters used to monitor a process vacuum system is a crucial aspect of system...considered in assessing instrument accuracy, especially that of variable capacitance gages. Admittedly, the application of *****microprocessors***** to compensate for changes in sensor temperature has substantially reduced inaccuracy. Accurate control of sensor...
... pilot plant, and small batch operations is simple: Plant operators monitor locally mounted gages and *****adjust***** valve positions, agitator *****speeds***** , liquid levels and other parameters, in order to comply with a procedure or "recipe." When...

12/3,KWIC/20 (Item 1 from file: 636)
DIALOG(R)File 636:IAC Newsletter DB(TM)
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00598422

THERMOGRAPHY UPDATE
SENSOR TECHNOLOGY January 00, 1989 V. 5 NO. 1
ISSN: 8756-4017 WORD COUNT: 817
PUBLISHER: TECHNICAL INSIGHTS, INC.

... zoom thermal-imaging telescopes. In one design by Pilkington

Electro-Optics data are sent from *****temperature***** sensors at various points in the telescope, along with magnification information, to a *****microprocessor*****. Required movement of the front lens is then calculated, after which it is moved by...

...the vidicon tube when overexposure occurs. (ST, May 1988, page 6).

Relatively slow speed of *****thermal***** sensing methods is a potential drawback that is being addressed on a variety of fronts...

... Evaluation, Iowa State University, Ames, IA 50011; phone, 515-294-7948. Other groups active in *****thermal***** *****sensing***** include Hughes Aircraft Co., El Segundo, CA; Inframetrics, Bedford, MA; Vanzetti Systems, Stoughton, MA.

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04140560

Industry ready for first of clean air hurdles

CA: Auto industry gears up to meet new, tougher emission standards

Automotive News November 2, 1992 p. 23
ISSN: 0005-1551
FULL TEXT AVAILABLE IN FORMAT 7 OR 9 WORD COUNT: 830

...of 0.40 gram per mile for oxides of nitrogen.

Some carmakers will even be *****selling***** cars that better the standards. With those, they will receive credits they can bank against...

... use new metal-foil substrates to carry the active materials. The use of the metal *****speeds***** warm-up and reduces power-robbing back-pressure. Installation of port fuel injection and sequential...

... are now being controlled with electronics to more precisely meter the exhaust.

Faster, more powerful *****microprocessors***** that respond quicker to rapid throttle changes.

Exhaust oxygen *****sensors***** are being *****heated***** to speed up their reaction times and makers are installing dual sensors to more closely ...

12/3,KWIC/22 (Item 2 from file: 16)
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01519108

YOKOGAWA'S NEW DIGITAL PRESSURE INSTRUMENT DELIVERS HIGH-ACCURACY MEASUREMENTS.

NEWS RELEASE August 18, 1986 p. 11

...exclusive, YEW-designed, twin-fork pressure sensor. Pressure applied to one end of the sensor *****changes***** the fork's natural frequency, which is in turn measured by piezoelectric elements. Changes in operating position, ambient temperature and humidity have negligible effects the

*****sensor*****. Gravity and *****temperature***** compensations are not required. Special dampening features protect the sensor from external vibration. The *****microprocessor***** -based unit can measure air, non-corrosive gas and non-corrosive fluid pressures. The pressure...

12/3,KWIC/23 (Item 3 from file: 16)
DIALOG(R)File 16:IAC PROMT(R)
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00740242
Pacific Technology's (Kirkland, Wash) Chillitrol 700 reduces energy consumption up to 20%.

Energy User News March 8, 1982 p. 11

The *****microprocessor***** -based controller for reciprocating compressor chillers maintains a building's temperatures at a set level using both indoor and outdoor *****sensors*****. The outdoor temperature and its rate of *****change***** help the *****microprocessor***** calculate chiller *****speed***** necessary to maintain the desired indoor temperature. ...

12/3,KWIC/24 (Item 4 from file: 16)
DIALOG(R)File 16:IAC PROMT(R)
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00633145
Euro Electronic Instruments Ltd's new microwatt meter is a microprocessor-controlled instrument fitted with a dual input channel option.

Electronics Weekly February 25, 1981 p. 16

The memory facilities of the Boonton 4200, an advantage afforded by the internal *****microprocessor*****, increase operation *****speed***** by reducing the time taken for setting up procedures. The 4200 is calibrated to respond...

... signals. Where higher level AM or complex waveforms are to be measured, a specially modified *****thermal***** *****sensor***** can be supplied to give direct average power readings. The inclusion of a *****microprocessor***** increased the flexibility of the man/machine interface, the display of information. Measurement output is...